

I ask NHTSA to deny Toyota's Application for Decision of Inconsequential Noncompliance. The regulations in FMVSS108 S5.5.11 clearly state that the minimum separation between a high beam DRL and the turn signal lamp is to be 100mm, and if that condition is not satisfied (45.6mm in the Celica's case), then

1) the DRL intensity is to be under 2600cd (Toyota is at 5880cd).

AND

2) the turn signal lamp must have a luminous intensity multiplied by 2.5 (Toyota is at 568cd).

The Celica satisfies condition 2 but grossly fails condition 1. It's strange that Toyota was willing to perform a comparison between minimum turn signal intensity and maximum DRL intensity and claimed that the turn signal was still discernable at 300 feet. However, Toyota did not offer their subjects the opportunity to comment on the effectiveness of the turn signal when the DRLs were disconnected. Thus, it appears that Toyota is mostly interested in the economic ramifications of its design failure, rather than the safety aspects.

The overall effectiveness of DRLs is in serious question and the high beam implementation has been determined to be very discomfoting to other road users (NHTSA in docket 4124-1). Extrapolation of Schieber's data (1998) to 5880cd shows that the deBoer discomfort rating would be approximately 3.93 at a viewing distance of 20m and a background luminance of 1000 cd/m<sup>2</sup>. I presume that the 5880cd intensity quoted by Toyota is for 12V test voltage, so the real world intensity will be higher and the discomfort rating drops closer to the "Disturbing" classification.

Add to this that the area of Celica's high beam lamp is fairly small, I submit that its turn signal effectiveness would be greatly enhanced if these vehicles were required to be recalled and the DRLs disconnected.

Respectfully submitted,

// Steve Johnson  
// College Station, TX